The manuscript nicely describes the calibration process for the JANUS data, supported by an overview of the existing calibration pipeline flow focusing on the radiometric and geometric calibration. In addition, the study provides an outlook into future already identified improvements to the JANUS calibration pipeline, as well as identifies clearly investigations to be continued on the calibration following effects/artifacts detected in the LEGA data. This is an important work to understand and analyse JANUS data.

In my opinion, the manuscript goes beyond providing an overview of the calibration pipeline and illustrates the calibration process for the JANUS data, which is why 1) I believe that the manuscript would benefit from expanding slightly some of the sections describing by the underlying input data and/or processes to the study (sections 3.2, and 3.5 for example), 2) I would encourage the authors slightly change the wording for the study to refocus the scope on the calibration "process" (rather than "pipeline", e.g. in the title, main text). Unless the calibration pipeline is released to the science community, I also do not personally see the need to mention "in the next version of the pipeline" in several places in the manuscript.

Please find below my detailed comments.

ANSWER:

We thank both the Referees for their valuable comments and for having appreciated the work.

Comments by both Referees have been extremely helpful also in improving the internal consistency of the work, and make it more readable. All the images have been re-printed using color-blind friendly colors (colormaps for images: Batlow or Viridis. Discrete color palette: discretization of Batlow or Okabe-Ito palette) or visually tested when not used. All the axis orientations have been checked and aligned to improve comparison.

We slightly expanded some sections (section 3.2) but we believe that a further expansion would be counter-productive. Our goal is to expose the logic behind the process to better support the data analysis and the other papers regarding the analysis of LEGA data. Our objective is to have a "supporting paper" rather than a "stand-alone" one.

We tried to implement all the Referee suggestions or to make our statements more clear, remaining in the spirit of this paper, as stated before. This has been made, specifically, carefully answering to the detailed comments.

In the following we address the specific questions:

We agree that the word "pipeline" could be misleading, and we changed, for the most of its appearances, to "procedure", to highlight the fact we are exposing the logic behind the actual implementation (that is: the code) of the reduction process. The word "pipeline" is now intended to refer to the code. Similarly, the words "release" has been removed and/or substituted by sentences as "in the future", "future updated version of the procedure", to better communicate the effort we are making to improve/refine the reduction process, regardless of the code.

Comments on main text

- Lines 1-2: "on board of the" should be "on board the".

  ANSWER:

Fixed

- Line 6: expand on what those “open points” are exactly about.

  ANSWER:

  Fixed. The sentence now is:
  In this paper we describe the calibration applied to JANUS data acquired during LEGA. Through a number of steps, radiometrically and geometrically calibrated images are produced, which can be used for scientific studies. Future improvements to the calibration, which are under investigation, are presented. Section 5 addresses the known limitations in the radiometric and geometric accuracy of the calibrated products as well as straylight, ghosts, diffusion, response at low exposure time, AOCS errors, temperature dependence of geometrical calibration and other effects A detailed description of the calibration algorithm and of the data generation is outside the scope of this paper and therefore not included.

- Lines 12-13: “limited in-flight data volume” should be “limited in-flight data volume available for science observations” (or similar)?

  ANSWER:
  We rephrased using “generally limited in-flight data volume for both science and calibration activities”

- Line 23: The “space environment and operating conditions” are certainly more “similar to those expected during the science phase” than during on-ground testing. Yet, those conditions are significantly different than those that will be encountered in the Jovian system (radiation, temperatures, operational constraints, ...). I would suggest to rephrase slightly.

  ANSWER:
  Even if the radiation conditions as well as the thermal environment is different at Jupiter than during LEGA, the operational conditions and constraints are similar. LEGA offered the possibility to simulate both low and high-altitude flybys at icy satellites and observations of the Jovian atmosphere. It therefore provided, for the first time, insights into the instrument performances under nominal operation conditions.

  We have therefore modified the sentence, removing the environmental part and detailing the operation conditions.
  In text:
  On 19 and 20 August 2024, JUICE successfully completed the first ever Lunar and Earth Gravity Assist maneuver (hereafter LEGA) performing a close flyby of both targets. This provided a unique opportunity to test the science payload capability in space with nominal operating conditions representative of those expected during science phase when observing targets in the Jupiter system.

- Line 25: “[…] observed by a large number of different sources […]”. What is exactly meant by “sources”? (Instruments on other missions?)

  ANSWER:
  we substituted “sources” with “instruments in space and on ground”, which in general includes observations from on-ground and in-flight

- Lines 29-32: This paragraph is unclear. The paper describes “the current status of the JANUS calibration pipeline” (line 29) but the “detailed description of the current calibration pipeline and how the products have been generated” is not within the scope of this work (lines 30-31). I would suggest to rephrase, since I believe that the pipeline is actually conceptually described, the calibration process is exposed, but the technical description of the pipeline (code) is not the scope of the paper.

  ANSWER:

  the paragraph has been rephrased as follows:
  In this paper we describe the calibration applied to JANUS data acquired during LEGA. Through a number of steps, radiometrically and geometrically calibrated images are produced, which can be used for scientific studies. Future improvements to the calibration, which are under investigation, are presented. Section 5 addresses the known limitations in the radiometric and geometric accuracy of the calibrated products as well as straylight, ghosts, diffusion, response at low exposure time, AOCS errors, temperature dependence of geometrical calibration and other effects A detailed description of the calibration algorithm and of the data generation is outside the scope of this paper and therefore not included.

- Line 79: unit of the calibrated data should be W/m^2/sr (written as W/m2/sr).

  ANSWER:
  Fixed

- Section 3.2: Too little is said about how the saturation level mask is obtained. The manuscript would benefit from more information on this aspect,
  ANSWER:
  we have rephrased lines 84-86 in an extra effort to make it more clear and understandable
  “To determine the saturation level of each pixel, the signal (in DN) is plotted against the calibration proxy value (see Section 3.5), which represents the energy reaching the instrument. Upon reaching saturation, the signal stops increasing and plateaus. Ideally, this state is characterized by a derivative that approaches zero. The saturation level (in DN) is thus defined as the value in DN corresponding to the first energy level, among all those tested during the ground calibration session, where the derivative falls below a safety threshold. The saturation level determination procedure is repeated for each pixel, and the resulting saturation values are stored in a matrix (the saturation map) which has the same dimensions of a JANUS full-frame image.”

- Lines 90-91: the meaning of the last sentence is unclear to me. Where in the pipeline/process are the saturated pixels actually masked? How those are identified in the data? What exactly is the “flag” mentioned in the sentence?

  ANSWER:
  We have rephrased the paragraph at lines 86 to 92, to make improve clarity:

  “The calibration pipeline uses the calibration mask and, comparing pixel-by-pixel the signal level in the raw image (background included) with the corresponding saturation level, flags each pixel which is exceeding the saturation level. For robustness, a pixel is considered saturated when it exceeds 98% of the saturation level.

  The flagging is dynamic, i.e. depends on the actual signal level of each pixel in each raw image. Thus the saturation mask is computed by the pipeline for each image.

The signal level of saturated pixel is set to a constant (i.e. -1000 currently), to allow easy identification and filtering during scientific analysis. While the identification and flagging of the saturated pixels is done as first step because it requires the raw signal in DN, the replacement of the pixel value with a constant is applied directly to the images in physical units.”

- Section 3.3: How is the bad pixel map looking like? How many pixels are affected (hot pixels, dead pixels)?
  ANSWER:
  Currently no bad pixel mask is applied due to negligible impact on the LEGA data, as stated in section 3.3. The section is anyway present because this paper intends to describe the full chain of corrections that are applied or envisaged for the science phase.
  We are currently working on an updated bad pixels map, based on in-flight data, that will be applied to newly acquired in-flight datasets.
  To be more clear we rephrased part of the paragraph:
  “The bad pixel masking is conceptually similar to the process described in the previous section.
  [...] However, a new evaluation based on in-flight data acquired during the payload checkouts suggests that the bad pixel map will regularly need to be updated to correct newly acquired in-flight datasets. Due to the negligible impact of bad pixels on LEGA data, no bad pixel mask is used.

- Section 3.4: I am missing the actual temperature range of the “first dataset” and “extended dataset”.

  ANSWER:
  The original sentence is a little bit misleading. The temperature range of the “first dataset” is not related to the Section 3.4 because the calibration factor we are currently using are derived from in-flight measurements and the temperature range is shown in Figure 3.

  We rephrased in:
  “Currently, a new set of calibration factors that is more representative of the current instrument behavior, has been generated using a different and broader dataset. In-flight data has been used taking advantage of data acquired during PCW opportunities, in particular from the Near-Earth Commissioning Phase (NECP) and PCW1 and PCW2.”

- Missing section between 3.4 and 3.5? Figure 1 refers to a filtering step called “out of knots range” which is, I believe, not described in the manuscript. Please expand.
  ANSWER:
  This is part of the absolute radiometric module since the need for this type of filtering is due to the limitation of the spline. We modify the section with:
  “The conversion from DN (background removed) to in-band integrated radiance is performed in three steps:
  - removing pixels with DN values out of the limit of the fitting” **(added a bullet in the sequence of operations)**

  A description is added
  Since the spline is not properly defined outside of its knots, an additional step is added at the

beginning of the absolute radiometric module, which removes pixels that cannot be calibrated. Those pixels appear in the final product as invalid, similar to saturated and bad pixel ones.

- Section 3.5: “The exact method and considerations used for the determination of calibration products are not the subject of this work”. I would strongly encourage the authors to provide more information about such methods and considerations used to derive the radiometric calibration. Since a significant part of the manuscript deals with calibration uncertainty of various sources, it would fit perfectly well here and set the calibration context clearly for the rest of the study.

  ANSWER:
  With “exact method” we were meaning the description of the algorithm used for the determination of the calibration products, which is outside the scope of this paper. We have therefore removed the sentence.

  We have modified the text as follows: The radiance has been derived from measurements done during JANUS ground calibration, using a calibration source with known spectrum. The spectrum of the source has been measured using a calibrated spectroradiometer. The in-band radiance has been calculated by integrating the source spectral radiance over the bandpass of each filter (Table 2).

- Line 163: “this step is left to the user according the objective of their research”. In order for a user to perform such correction for the Earth, the instrument transfer function must be provided, as well as the spectral radiance of the calibration light source.

  ANSWER:
  Any product required for the calibration procedure will be released (as PDS4 product) together with the data via the PSA.

  The text has been integrated as follows: …this step is left to the user according to the objective of their research. The instrument transfer function as well as the spectral radiance of the calibration light source are released together with the dataset.

- Section 3.6: The spectral correction of the Moon data is performed using a full disk irradiance spectrum of the Moon computed using the LIME model. It is not fully clear to me how was the spectral correction process performed. JANUS observations were performed either close to the Moon or at distance (Earth-Moon observations), but in either case with a relatively high phase angle (line 236). It would be interesting to expand a bit more on the method used to determine the spectral correction factors given the particular geometry of observation (partial illumination of the Moon) and also the fact that the disk itself potentially integrates lunar terrain of different natural types. How is this taken into consideration?

  ANSWER:
  In principle, the spectral correction should be performed separately on dark and bright terrains but this is an extremely complex work, because of the potential presence of both terrain types in every image. Using an “average” approach is a way to proceed used also by other authors, for example, from Besse 2013 “One Moon, many measurements 2: Photometric corrections”, for the selection of photometric model:
  “Finally, M3 derived a photometric model based on bright materials only, whereas SP derived two photometric models separately for bright and dark materials. Details on the process used to separate mare and highland material are provided by Yokota et al. (2011) and Besse et al. (2013). In this study, the phase functions derived for bright materials are compared so as to perform the

most direct comparison possible. It is important to note that MI photometric correction uses an averaged phase function of the dark and bright materials derived from SP."
(note - M3: Moon Mineralogy Mapper, SP: Spectral Profiler, MI: Multiband Imager)
An approach could be to perform the spectral calibration based on the solar spectrum, but in this way the spectral reflectance of the observed body is totally neglected. A proxy which is closer to reality is the use of an average spectral radiance of the body. In principle, the spectrum of the target observed by every pixel should be considered, but this approach would imply a knowledge that we will not have on the targets in Jupiter system. Some spectral information will be obtained by the JUICE imaging spectrometer (MAJIS) and will be used also for the JANUS data calibration. We consider this issue as minor, once the small amount of the correction is considered with respect to the required calibration accuracy.

- Line 238: How does the spatial resolution of the Selene DTM compares with JANUS'?
  ANSWER:
  The SELENE DTM (SLDEM, Barker et al., 2016) has a resolution of 60 m/pixel, while JANUS lunar images acquired during the Earth-Moon flyby (August 2024) reached a best-case resolution of approximately 13 m/pixel, with most images being coarser. The DTM is therefore roughly 4-5 times coarser than the finest available JANUS pixel scale. Using a DTM coarser than the native image resolution is a common practice in planetary imaging when no higher-resolution, geodetically-controlled alternative is available: for instance, the LROC NAC Processing Guide recommends using the SLDEM as the reference shape model for projecting NAC images at their native resolution (sub-meter to a few meters per pixel) whenever a dedicated high-resolution local DTM does not exist for the area of interest.
  Reference LROC NAC Processing Guide, LROC Science Operations Center: https://lroc.im-ldi.com/data/support/downloads/LROC_NAC_Processing_Guide.pdf

  We added in the text:
  "which has a resolution of 60 m, roughly 4-5 times coarser than the finest available JANUS pixel scale."
- Line 239: Remove "already" (redundant with "previously")

  ANSWER:
  Fixed
- Lines 243-244: "JANUS acquired 19 August" should be "JANUS acquired on the 19th of August".

  ANSWER:
  Fixed
- Line 334: "ESA SPICE operational" should be "ESA SPICE JUICE operational"

  ANSWER:
  Fixed. Added also the reference since it is the first time it is encountered
- Line 344: "in bottom part" should be "in the bottom part

  ANSWER:
  Fixed
- Line 345-346 refers to the quantum efficiency degradation due to the silicon material, but silicon is not explicitly mentioned in Section 2. To be added to Section 2?

ANSWER:
Fixed, added the word "silicon" in the introductory sentence on the detector

- Section 5.1.8: Please provide the ranges of exposure times and radiance levels for completeness. See also comments for Figure 22.

  ANSWER:
  Fixed. We also added a table, now Table 6 with min/max for both exposure time and in-band radiance. We modify the text to make everything more clear:
  "Figure 18 shows a detail of the lower part of the dynamic range of the calibration measurements for some example filters: F1, F4 and F9 (see Agostini (2023) for details). Table 6 shows the range of exposure times and in-band radiances for filters F1, F4 and F9."
  Please note that: Figure numbering has been updated after merging several figures as suggested, the sentence "detail of the lower part of the dynamic range" has been added to make more evident that the plots do not show the full curve but a zoom in useful to understand the effect described in this section.

  Also added also for clarity:
  "*For all filters with the exception of F1, exposure times lower than 4 ms give low signal-to-noise ratio (SNR). Only for F1 a broad range of instrument dynamic range has been tested with low exposure time."*

- Line 411: Missing dot.

  ANSWER:
  Fixed

- Line 415: "Figure 26 and 25" should be "Figures 25 and 26"

  ANSWER:
  Fixed

- Line 422: "ops kernel" should be "juice_ops kernel" for consistency.

  ANSWER:
  Fixed

- Line 430: "executed the science planning" should rather be "executed the LEGA science operations plan" (or similar).

  ANSWER:
  Fixed

- Line 431: "84 of the Moon-Earth system" should be "84 Moon-Earth system images".

  ANSWER:
  Fixed

- Line 441: "Jupyter" should be "Jupiter".

  ANSWER:
  Fixed

Comments on figures

- Final dots are missing in most figure captions.

  ANSWER:
  Fixed

- Figure 1:

  - Recall the processing levels in the figure caption.

    ANSWER:
    Fixed. Added:
    The product levels nominally generated by the pipeline are also shown : "raw" (data without elaboration),"par" (e.g. partially calibrated data, data without absolute radiometric calibration),"cal" (data with absolute radiometric calibration) .

  - In the caption, “openness” should rather be “clarity”?
    ANSWER:
    Fixed

  - I am also missing information on the pipeline inputs expected at every processing step (similar to Figure 8).
    ANSWER:
    The figure has been re-drawn to be more in agreement with Figure 8. Inputs are now explicitly written.

  - I am missing the step described in section 3.6 in this figure.

    ANSWER:
    These steps are not yet formally included in the pipeline and are planned to be included in the next release. For this reason they are not included in the figure.

- Figure 2: Is there an explanation for the column gradient seen in the saturation map?

  ANSWER:
  If you are referring to the different saturation level between tiles, this is potentially due to the fact that the detector is structurally divided into 4 tiles, whose behaviour is different. The potential sources of this difference are an intrinsic characteristic originating from the manufacturing process and/or from the presence of different pre-amplification chains for each tile.

- Figure 4: Is the content of figure relevant to LEGA only, or does it cover JANUS images prior to LEGA? From the Conclusion section, it seems that 400-500 images have been acquired during LEGA but the acquisition ID shown here goes up to 600+. If the data are from different periods of time, it would be good highlight those in the figure.

  ANSWER:
  The images used for the make the figure are not part of the LEGA dataset, as described in Section (3.4), but they are part of routine payload checkout windows. I assumed that the misunderstanding comes from the sentence in the section, where the word “extended” could lead the reader to think that those images has been “added” to the LEGA:
  “An extended dataset has been considered using in-flight data, taking advantage of data acquired during PCW opportunities”

I change the word to "broad", which is more in line with what I mean "large dataset"

- Figure 5: Fonts are small, please increase these.

  ANSWER:
  Fixed

- Figure 7:

  - I am having a hard time to interpret this figure. Is the resulting distortion a lower left - upper right "shear" of the image? I think it would be useful to illustrate the distorted VS undistorted shape of the image related the optical distortion.

    ANSWER:
    We rephrased slightly:
    "In this section we describe how the relationship between the ray direction and the pixel coordinate has been modeled and determined. "
    And added
    "In this work, the term *distortion* means *deviation from the ideal model*."
    To make it more explicit that the objective of this modelling is to derive the relationship between the pixel coordinates and its line of sight in a well determined camera system and not to model the actual optical distortion of the instrument, which we will perform in a dedicated work.
    Note that the module of the distortion (white lines in figure, as described in caption) is almost circular, therefore we expect a radial "deviation from ideal". The apparent shear comes from the fact that the maps show the deviation of x/y coordinates with their sign in the JUICE_JANUS reference system.
    Unfortunately we can not show the "undistorted" version wrt the "distorted" because our approach is to not rewarp the image. Our calibrated images should always be read along with their related geocube, in which we provide the effective lines of sight for each pixel (that is: lat/lon for surface or ra/dec for sky observations)

  - The pixel origin of the distortion maps seems different from some of the other images shown in the manuscript (see Figure 2 for instance).
    ANSWER:
    If you are referring to the direction of the axis (pixel 0,0 in different positions top right or top left corner) this has been fixed. All the images now have the same orientation.

- Figure 8: Based on the pipeline sketch, the "geo" products do not include the quantities associated to an intercept with a surface ("geo" being before the dashed line). Is this correct, knowing that the geometry cube in the figure includes such quantities? (Or am I misinterpreting the figure?)

  ANSWER:
  Probably the figure was not super clear in this sense. The geocube contains that information but only if an intersection exists. This is the reason why the "geo" is located even before the part with the intersection with the body: right ascension and declination planes always exist. I modify the figure and I added a sentence in the caption to explain it better:

  "The geocube is generated by the pipeline for every image. The number and type of planes present in the geocube varies. Specifically, the **right ascension and declination planes are always present, while the other planes are generated only if the a body is in the field-of-view*"***

- Figure 13 and 15: Upper case “P” missing for “Partially calibrated”

  ANSWER:
  Fixed

- Figure 13: Why choosing the central column for the vertical profile? It should be close to a tile edge subject to variation in intensity. Wouldn’t it be better to extract 4 profiles (one per tile in the middle of the tile, or one average per tile)? Profile locations could be shown on the image and actually display on the right hand side of the figure (outside the image).

  ANSWER:
  Thank you for your suggestions. We have implemented it. In the panel (b) now there are 4 plots, they describe the profiles in the middle of each tile.

- Figure 14: Add legend for the dashed line (terminator?)

  ANSWER:
  Fixed

- Figure 16 could be annotated to better show the multiple artifacts visible in the image (SDBS, ghost, straylight)
  ANSWER:
  Thanks for the suggestions. Due to multiple reflections (even large as the entire detector, which is difficult pointing to, without confusing further the reader), we prefer to postpone the annotation in a dedicated paper with the support of the complete analysis of straylight.

- Figures 19 and 20: Those are very busy plots.

  - I would suggest to move the profiles outside the image.

    ANSWER:
    Following the request of the other referee, we merged Fig 19 and 20 in a single figure, organizing the images in a single row. Unfortunately, moving the profiles outside the image reduces the size of the images considerably, thus we decided not to do it.

  - Profiles color is cyan.
    ANSWER:
    Fixed

  - Add a title with the filter number, and the central wavelength (+ exposure and median signal currently on the image).
    ANSWER:
    We added the title with filter and central wavelength. We prefer to maintain the Median and the exposure time in a box inside the image

- Figure 21: Missing Y-axis label.

  ANSWER:
  Fixed

- Figure 22:

  - Symbols are hard to read, use one color per test case? It would be easier to read panel a.

    ANSWER:
    Fixed

- Legends need to be explained (in the caption and/or text). I guess that COLD refers to the setpoint (based on the text), what do HOT and MIDDLE stand for?

  ANSWER:
  Fixed, see below

- Panel c has a different test case (SPECIALFILTERS) which is not explained

  ANSWER:
  Fixed, see below

- There is no COLD setpoint case for ITF vs TEXPO, why?

  ANSWER:
  Because it has been not acquired during on-ground calibration

ANSWER:
In the text:
To evaluate the instrument radiometric response we performed two types of measurements: fixed radiance level with variable exposure time (ITF vs Texpo) and fixed exposure time with variable radiance level (ITF vs Radiance). Those measurements have been repeated at three different temperature setpoints inside a Thermo-Vacuum Chamber (HOT, MIDDLE and COLD).

In the caption:
ITF vs Radiance: measurement with fixed exposure time and variable radiance level, ITF vs Texpo: measurement with fixed radiance level and variable exposure time, Specialfilters: special case of ITFvsTexpo measurement in which the radiance level has been optimized to simulate the expected level in-flight. The measurements have been replicated at three different temperatures setpoint (HOT, MIDDLE and COLD). Three filters are reported as representative of filter categories on board JANUS: a) F1 (panchromatic), b) F4 (broadband filter) and c) F9 (narrowband). Each measurement is indicated with the same marker in all the three plots. The output of the instrument radiometric model is also reported as a reference (black dotted curve).

- Figure 24 needs to be better explained, at least in the caption (acronyms not defined). I do not understand it as it is now.

  ANSWER:
  To improve the comprehension of the section the text has been rephrased:
  "Analysis on pointing requires the evaluation of different aspects of the system performance, as described in ESSB-HB-E-003 Working Group (2011). Figure 24 depicts (in red) the evolution in time of a generic quantity of interest (e.g. an angle of rotation of a reference system with respect to another one). Some performance parameters useful to characterize the system are:

  - ***Absolute Performance Error (APE) which is the difference between the target parameter (commanded) and the actual one.***
  - ***Absolute Knowledge Error (AKE) which is the difference between the current knowledge of the attitude and the actual one.***
  - ***Mean Performance Error (MPE) is the mean value of the APE in a selected time window. This window could be considered the observing window of JANUS during a science observation.***
  - ***Relative Performance Error (RPE) is the variation of the quantity under study during the observing window***

In this section we considered the effect of the AKE."

The caption of figure 24 (now Figure 20) has been rephrased

"Visual depiction of the evolution (in red) of a parameter under study (like a rotation angle) during the time. Some pointing errors are included (ESSB-HB-E-003 Working Group, 2011). Observing window is a generic JANUS scientific/calibration time period during which the instrument is observing a target. Acronyms: RPE (Relative Performance Error), AKE (Absolute PerformanceError), MPE (Mean Performance Error), RPE (Relative Performance Error)"

- Figure 25 image quality needs to be improved. Also please note the missing opening bracket in the titles.

  ANSWER:
  Fixed. We removed the titles of the image and added them in the caption

- Figure 26 caption: "coherent" should be "consistent".

  ANSWER:
  Fixed

- A number of figures could be combined in a single figure for better readability. This is the case (in my opinion) of the following figures:

  - 9 and 10 address both the rolling shutter effect.
    ANSWER:
    Fixed

  - 13 and 14 address both the straylight effect (one is the effect and the other illustrates the geometry).

    ANSWER:
    Fixed

  - 17 and 18 address both the absolute radiometric calibration

    ANSWER:
    Fixed

  - 19 and 20 address both the diffusion, using different filters.

    ANSWER:
    Fixed

Comments on tables

- Final dots are missing in some of the table captions.

  ANSWER:
  Fixed

- All tables: Use the same naming convention for the filters between the text and the tables (1 -> F1)

  ANSWER:
  Fixed

- Table 1: I think the parameters refer more to the JANUS specifications than actual performance parameters.

  ANSWER:
  Fixed. Change from "performance" to "specification"

- Table 3: Recall the meaning of S_moon and C_filter in the caption.

  ANSWER:
  Fixed

- Table 4 (and data generated):

  - Should the distance to the target limb be one of the geometric data provided by JANUS? For limb observations, this would be very relevant.

    ANSWER:
    We are currently not planning to insert this information in the cube at this time, but we will discuss your suggestions internally to Team to decide. Thank you for the suggestion

  - Should there be pixel corners lat/lon coordinates provided as part of the JANUS geocube? (I assume that the coordinates mentioned are those of the pixel centers).

    ANSWER:
    Currently we are not planning to provide coordinates all the pixel coordinates, since the instrument is a high-resolution camera and we made a balance between the fact that in the majority of cases we suppose the center of the pixel is sufficient and the size (in bytes) of the geometric product

    We added a sentence in the caption of table 4 to specify better:
    "Structure of JANUS geocube. Each parameter is computed at the center of the pixel."

- Table A1. Possible changes to the figures to be reflected in this table. Will those calibrated and partially calibrated data be available in 2029 with the same Image ID?
  ANSWER:
  We added this sentence to be more clear:
  "Images used in this work. Note that Image ID does not correspond to the name of the image. The Image ID is an alphanumeric string which includes the start time of the session, the acquisition number inside the session and the filter ID. This will not change during the mission. The full name, is a unique identifier of the product and includes the Image ID, the calibration level, the calibration steps and the version"

Bibliography

- Please update the bibliographic references with published article DOIs
  ANSWER:
  Fixed

- Please use consistent citation style throughout the bibliography (all authors or a subset of authors).

  ANSWER:
  Fixed. All authors' styles has been selected, the first name is abbreviated.

- Please correct the citation to the ESA SPICE Service (which contains twice the DOI).

  ANSWER:
  Fixed

- Please complete the references to books or book chapters by including (publisher, DOI if any)

  ANSWER:
  Fixed